AR201 - 12614b1

ROBUST SUMMARY

ON

p-CUMYLPHENOL

CAS No. 599-64-4

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ROBUST S U M M A R Y

DATE: 01-28-00

CAS NO: 599-64-4		Information	OECD Study	GLP	Other Study	Estimation Method	Acceptable	SIDS Testing Required
STUDY		**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**
PHYSICAL-CHEMICAL DATA								
1.0	Melting Point	Y	N	N	Y	N	N	Y
2.0	Boiling Point	Y	N	N	Y	N	N	Y
3.0	Vapour Pressure	N						Y
4.0	Partition Coefficient	Y	N	N	Y	N	N	Y
5.0	Water Solubility	N						Y
ENVIRONMENTAL FATE and PATHWAY								
6.0	Photodegradation	N						Y
7.0	Stability in water	N						Y
8.0	Transport and Distribution	N						Y
9.0	Biodegradation	N						Y
ECOTOXICITY								
10.0	Acute toxicity to Fish	N						Y
11.0	Toxicity to Algae	N						Y
12.1	Acute toxicity to Daphnia	N						Y
12.2	Chronic toxicity to Daphnia	N						Y
TOXICITY								
13.1	Acute Oral	Y	N	Y	Y	N	Y	N
13.2	Acute Inhalation	N						Y
13.3	Acute Dermal	N						Y
14.0	Genotoxicity *in vivo* (Chrom. Aberrations)	N						Y
15.1	Genotoxicity *in vitro* (Bacterial Test)	Y	N	Y	Y	N	Y	N
15.2	Genotoxicity *in vitro*	N						Y
16.0	Repeated Dose	N						Y
17.0	Reproductive Toxicity	N						Y
18.0	Development Toxicity / Teratogenicity	N						Y

PHYSICAL-CHEMICAL DATA

1.0 MELTING POINT

(a)

Value:	72 °C
Decomposition:	Yes [ ] No [ ] Ambiguous [ ] ? [X]
Sublimation:	Yes [ ] No [ ] Ambiguous [ ] ? [X]
Method:	Unknown
GLP:	Yes [ ] No [N] ? [ ]
Remarks:	No information
Reference:	Report on mutagenicity test using micro-organisms, Test performed by Mitsui Petrochemical Industries for GE Plastics. December 12, 1984.

2.0 BOILING POINT

(a)

Value:	335 °C
Pressure:	Unknown
Decomposition:	Yes [ ] No [ ] Ambiguous [ ] ? [X]
Method:	Unknown
GLP:	Yes [ ] No [X] ? [ ]
Remarks:	No information
Reference:	From ChemFinder (Online)

3.0 VAPOUR PRESSURE

No studies were found.

4.0 PARTITION COEFFICIENT $\log_{10}P_{ow}$

(a)

Log Pow:	4.49
Temperature:	Unknown
Method:	Unknown
GLP:	Yes [ ] No [ ] ? [X]
Remarks:	No information
Reference:	Mathiessen, P., Thain, J.E., Law, R.J., Fileman, T.W. 1993. Attempts to assess the environmental hazard posed by complex mixtures of organic chemicals in U.K. estuaries. *Marine Pollution Bulletin* 26(2):90-95.

5.0 WATER SOLUBILITY

A. Solubility

No studies were found.

B. pH Value, pKa Value

No studies were found.

ENVIRONMENTAL FATE AND PATHWAYS

6.0 PHOTODEGRADATION

No studies were found.

7.0 STABILITY IN WATER

No studies were found.

8.0 TRANSPORT AND DISTRIBUTION BETWEEN ENVIRONMENTAL COMPARTMENTS INCLUDING ESTIMATED ENVIRONMENTAL CONCENTRATIONS AND DISTRIBUTION PATHWAYS

A. TRANSPORT

No studies were found.

B. THEORETICAL DISTRIBUTION (FUGACITY CALCULATION)

No studies were found.

9.0 BIODEGRADATION

No studies were found.

ECOTOXICOLOGICAL DATA

10.0 ACUTE/PROLONGED TOXICITY TO FISH

No studies were found.

11.0 TOXICITY TO AQUATIC PLANTS e.g. Algae

No studies were found.

12.1 ACUTE TOXICITY TO AQUATIC INVERTEBRATES

No studies were found.

12.2 CHRONIC TOXICITY TO AQUATIC INVERTEBRATES

No studies were found.

TOXICITY

ACUTE TOXICITY

13.1 ACUTE ORAL TOXICITY

(a)

Type:	LD_0 [ ]; LD_{100} [ ]; LD_{50} [X]; LDL_0 [ ]; Other [ ]
Species/strain:	Rats/Sprague Dawley
Value:	1.77 g/kg
Method:	EPA TSCA 40 CFR 798.1175
GLP:	Yes [X] No [ ] ? [ ]
Test substance:	Commercial, purity: Not stated
Remarks:	Young adult Sprague Dawley rats were administered the test material as a 25% w/v formulation in corn oil to five groups of male and female rats. Four dose levels (5.0, 2.5, 1.25, and 0.625 g/kg) were evaluated. Animals were observed for 14 days.
Reference:	Study conducted by Hill Top Biolabs, Inc. Unpublished study for Schenectady Chemicals, Inc. Title: Acute Oral Toxicity in Rats – p-cumylphenol – Median Lethal Dosage Determination. August 23, 1990.

13.2 ACUTE INHALATION TOXICITY

No studies were found.

13.3 ACUTE DERMAL TOXICITY

No studies were found.

14.0 GENETIC TOXICITY IN VIVO (CHROMOSOMAL ABERRATION TEST)

No studies were found.

GENETIC TOXICITY IN VITRO

15.1 BACTERIAL TEST

(a)

Type:	Reverse reverse mutation Assay	
System of testing:	Species/strain: *S. typhimurium* strains TA 98, TA100, TA 1535 and TA 1537.	
Concentration:	5, 10, 50, 100, and 500 µg/plate	
Metabolic activation:	With [ ]; Without [ ]; With and Without [X]; No data [ ]	
Results:		
Cytotoxicity conc:	With metabolic activation:	>100µg/plate
	Without metabolic activation:	>50µg/plate
Precipitation conc:	Unknown	
Genotoxic effects:	With metabolic activation:	[Negative]
	Without metabolic activation:	[Negative]
Method:	Preincubation	
GLP:	Yes [ ] No [ ] ? [X]	
Test substance:	Commercial, purity: >97%	
Remarks:	Negative with and without activation system (S9 fraction from male SD strain rat). Media and number of replicates unknown.	

Reference: Report on mutagenicity test using micro-organisms, Unpubished test performed by Mitsui Petrochemical Industries for General Electric Company dated December 12, 1984.

15.2 NON-BACTERIAL IN VITRO TEST (MAMMALIAN CELLS)

No studies were found.

16.0 REPEATED DOSE TOXICITY

No studies were found.

17.0 REPRODUCTIVE TOXICITY

No studies were found.

18.0 DEVELOPMENTAL TOXICITY/TERATOGENICITY

No studies were found.